

REVERSE OUTER LOOP OPTIMIZATION FOR COMMUNICATION CHANNELS WITH DISCONTINUOUS TRANSMISSION (DTX)

Abstract of the Disclosure

[0098] A method and device is disclosed for outer loop power control for communication over a channel employing DTX. A device having DTX detection compensates for a known non-zero probability of DTX detection given an Erasure frame, $P(D|E)$, by determining a compensation factor and adjusting a desired or expected target FER with the compensation factor to achieve a compensated target FER. The $P(D|E)$ may be known or estimated to be a constant value, the value of $P(D|E)$ may also be dynamically determined based on channel conditions. The method and device may also compensate for a non-zero $P(E|D)$, i.e. a probability of an Erasure detection given a DTX. A number of consecutive DTX indications triggers the outer loop to reduce the power control setpoint by a predetermined value or by a dynamically determined value. A dynamic value may be determined from an identified number of Erasure frame detections.